

[EQUAL RESPONSE AXLE]

Abstract

Equal response rear axles ("kera" axles) for vehicles having a front engine and rear wheel drive comprises a left and right rear axle which are sized to different predetermined dimensions. Conventionally, torque is delivered to the rear wheels unequally since the right side axle is longer than the left side axle, yet both axles have the same diameter in their effective length. The equal response axles are dimensioned based upon a formula for calculating spring rates or torsion bars. The calculations includes using the static loaded radius the dimension form the center of the axle to the ground and using either static or dynamic weight on the tire, that is the portion of the tire which is flat on the ground.